

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A piezo-electric actuator comprising:

a piezo-electric element having a piezo-electric body which is provided with at least two opposing surfaces, wherein the surfaces perform an expanding and contracting motion in accordance with a state of an electric field;

a constraint member for constraining the piezo-electric element on at least one of the two surfaces,

a supporting member disposed around the constraint member, but not below the constraint member, and

a plurality of beam members each having both ends that are fixed to the constraint member and the supporting member, respectively, wherein each beam member has a neutral axis for bending in a direction substantially parallel with the constrained surface,

wherein the constraint member vibrates by vibration which is generated by constraining effect between the constraint member and the piezo-electric element, and is amplified by the beam members,

wherein said beam members are straight beams.

2. (canceled).

3. (previously presented) The piezo-electric actuator according to claim 1, wherein said constraint member has a base for constraining said piezo-electric element, and a plurality of arms that extend from said base to constitute said beam members.

4. (previously presented) The piezo-electric actuator according to claim 1, wherein said constraint member is a second piezo-electric element which differs in vibrating direction from said piezo-electric body.

5. (previously presented) The piezo-electric actuator according to claim 1, wherein said piezo-electric element comprises a plurality of said piezo-electric bodies and a plurality of electrode layers for applying an electric field to said piezo-electric bodies, wherein each piezo-electric body and each electrode layer is alternately laminated.

6. (previously presented) The piezo-electric actuator according to claim 1, wherein said piezo-electric element is provided with an insulating layer on at least one of said two surfaces.

7. (previously presented) The piezo-electric actuator according to claim 1, wherein said piezo-electric element has a rectangular parallelepiped shape.

8. (previously presented) An acoustic element comprising:
the piezo-electric actuator according to claim 1; and

a vibrating film coupled to said piezo-electric actuator for radiating sound through vibration that is transmitted from said piezo-electric actuator.

9. (original) The acoustic element according to claim 8, further comprising a vibration transmitting member sandwiched between said piezo-electric actuator and said vibrating film.

10. (previously presented) An electronic device comprising the piezo-electric actuator according to claim 1.

11. (previously presented) An electronic device comprising the acoustic element according to claim 8.

12. (previously presented) An acoustic apparatus comprising a plurality of said acoustic elements according to claim 8 which have resonance frequencies different from each other for smoothing frequency response of sound pressure.

13. (original) An electronic device comprising said acoustic apparatus according to claim 12.